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AMSAT NEWS SERVICE
ANS-024

ANS is a free, weekly, news and information service of AMSAT North America,
The Radio Amateur Satellite Corporation. ANS reports on the activities of a
worldwide group of Amateur Radio operators who share an active interest in
designing, building, launching and communicating through analog and digital
Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-024.01
Phase-3E News From AMSAT-DL General Meeting

AMSAT News Service Bulletin 024.01
  From AMSAT HQ SILVER SPRING, MD.
January 24, 2010
To All RADIO AMATEURS
BID: $ANS-024.01

Phase-3E News From AMSAT-DL General Meeting(1st English Translation)

Peter, DB2OS, informed the extraordinary general meeting at
10 October 2009 about Phase-3E. The mechanics of the satellite
are ready. Also many modules are mostly still at the developers.

Following the extraordinary general meeting there were celebrat-
ing a major milestone in the project. Mario, DL5MLO, showed the
data transfer between a in Germany produced engineering model of
the IHU-3 and a notebook with 400 bps PSK.

OM Dr. Karl Meinzer takes immediately some IPS commands to the
onboard computer enjoying to see the correct answer in the display
of the laptop. This is the core of the data communications for P3E
control and monitoring in flight.

So far there is only a prototype at basic layout of the last stand.
Due to various changes in the schematic and no longer available or
improved components all layouts will be revised or newly created.

The construction of the IHU-3, CAN-DO! Bus and the SDX at AMSAT-DL,
Phase-3E is now "ITAR-free", ie free of export restrictions in the
U.S. These modules were developed also as an aid by members of AMSAT-NA.

Launch costs

A satellite launch with the Ariane will cost about 3 million Euros. An alternative to Ariane and Soyuz could be the new agency SpaceX. It was talked about the possibilities for an inexpensive launch for P3E with one of the Falcon 9 rockets. At present, the prices for a regular Falcon-9
are outside the financial resources of AMSAT-DL. During the interview, there were signs however, a vague possibility of how to reduce costs. AMSAT-DL will continue to remain in contact with SpaceX.

The financing of launch costs would be done by the Mars P5A mission. For the feasibility of P5A with costs of 10 million Euros for each start and developing it was agreed with DLR the creation of a study. The planned realization of the P5A Mission to Mars was between 2016 to 2018.

Alternative P5-Moon mission

Hartmut, DL1YDD, said that talks in September 2009 with the DLR at technical level took place. A lunar mission as an intermediate step to a Mars
mission would be equipped with a probe in a 100-km orbit around the Moon

and possible in 2014.

The satellite design for the P5-Moon mission is, as the P5-Mars mission,

based on the P3D structure of AO-40. Further details will follow after completion of the currently for six months pending DLR/AMSAT-DL-study in spring 2010.

See also:
http://www.amsat-dl.org
http://www.p3e-satellite.org/
http://www.dlr.de
http://www.spacex.com/

[ANS thanks to Thomas Frey, HB9SKA, and the SouthGate Amateur Radio News for the above information]

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SB SAT @ AMSAT $ANS-024.02
Request for submision of articles for the SVHFS Conference

AMSAT News Service Bulletin 024.02
From AMSAT HQ SILVER SPRING, MD.
January 24, 2010
To All RADIO AMATEURS
BID: $ANS-024.02

Friends,
It would be very helpful if you're planning to present and/or submit a paper
for the 2010 SVHFS Conference to let us know. The deadline for submissions
is February 5th, so time is ticking but not out. The conference planners are
busy making preparations. So far we have open slots for the presentations on
both Friday and Saturday. Requests for presentation slots are being

taken
now, please let us hear from you.

Call for Papers 14th Annual Southeastern VHF Society Conference April
23rd
and 24th, 2010 Morehead State University in Morehead, Kentucky

The Southeastern VHF Society is calling for the submission of papers and
presentations for the upcoming 14th Annual Southeastern VHF Society
Conference to be held at Morehead State Univeristy in Morehead, KY on
April
23rd and 24th, 2010. Papers and presentations are solicited on both the
technical and operational aspects of VHF, UHF and Microwave weak signal
amateur radio.  Some suggested areas of interest are:

Transmitters
Receivers
Transverters
RF Power Amplifiers
RF Low Noise Pre Amplifiers
Antennas
Construction Projects
Test Equipment And Station Accessories
Station Design And Construction
Contesting
Roving
DXpeditions
EME
Propagation (Sporadic E, Meteor Scatter, Troposphere Ducting, etc.)
Digital
Modes (WSJT, etc.) Digital Signal Processing (DSP) Software Defined
Radio
(SDR) Amateur Satellites Amateur Television

In general papers and presentations on non weak signal related topics
such
as FM repeaters and packet will not be accepted but exceptions may be
made
if the topic is related to weak signal.  For example, a paper or
presentation on the use of APRS to track rovers during contests would be
considered.

The deadline for the submission of papers and presentations is February
5,
2010.  All submissions for the proceedings should be in Microsoft Word
(.doc). Submissions for presentation at the conference should be in
PowerPoint (.ppt) format, and delivered on either a USB memory stick or
CDROM or posted for download on a web site of your choice.

Pages are 8 and 1/2 by 11 inches with a 1 inch margin on the bottom and
ï¿½
inch margin on the other three sides.  All text, drawings, photos, etc.
should be black and white only (no color).

Please indicate when you submit your paper or presentation if you plan
to
attend the conference and present there or if you are submitting just
for
publication. Papers and presentations will be published in bound
proceedings
by the ARRL.  Send all questions, comments and submissions to the
program
chair, Robin Midgett K4IDC via K4IDC at comcast dot net.

For further information about the conference please go to
<http://www.svhfs.org>www.svhfs.org

Thank you,
Robin Midgett K4IDC
2010 Program Chair, SVHFS

[ANS thanks Robin, K4IDC for the above information]

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SB SAT @ AMSAT $ANS-024.03
Happy Birthday

AMSAT News Service Bulletin 024.03
  From AMSAT HQ SILVER SPRING, MD.
January 24, 2010
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Happy Birthday!  Guess who turned 20 years old on January 22nd?

AO-16, DO-17, WO-18, and LO-19  !!  :)

To honor the great work of AMSAT volunteers that created, built, and
launched the original "fleet of four" microsats exactly 20 years old, we
will be *attempting* to operate AO-16 in its special "voice mode"
on select passes during the period January 21-24.    Operations will
be limited to stations that share the footprint with the command station
N8MH (grid FM05pj).

Mode FM Voice Repeater (Downlink is DSB. Operation is Intermittent)
Uplink: 145.9200 MHz FM
Downlink 437.0260 MHz USB and LSB

Please understand that because of the current orbit and a thermal issue
in
the spacecraft, the satellite turns itself OFF via a reset rather
unpredictably--sometimes only moments after being turned ON.
So operations may be limited to very short periods of times (barely
enough for quick exchange).   During some passes it might not work at
all...but I'm willing to give it a shot.

Watch for AO-16 to be turned ON for operations during the following
dates
and times, posted below in UTC:

 WinAos   QTH: -78.7/35.4
 ------------------------------------------------------------
    Day       Object      AOS (U) LOS
 ------------------------------------------------------------
 21.01.2010  AO-16        19:02 19:16

 22.01.2010  AO-16        08:56 09:10  <- (yes, that's 4am Eastern time
;)

 22.01.2010  AO-16        20:10 20:25

 23.01.2010  AO-16        08:25 08:40

 23.01.2010  AO-16        19:39 19:54

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 24.01.2010  AO-16        19:09 19:23

 24.01.2010  AO-16        20:49 21:02


Let's hope at least a few of you can make a contact!  If nothing else,
you
can listen to the familiar "hmmmmm" of 1200BPSK and reminisce.


73,

Mark L. Hammond [N8MH]
AO-16 Command Station

[ANS thanks Mark, N8MH For the above information]

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SB SAT @ AMSAT $ANS-024.05
ARISS Report

AMSAT News Service Bulletin 024.05
  From AMSAT HQ SILVER SPRING, MD.
January 18, 2010
To All RADIO AMATEURS
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Amateur Radio on the International Space Station (ARISS) Status Report
January 18, 2010

1.      Upcoming School Contacts

An Amateur Radio on the International Space Station (ARISS) contact was
scheduled for Minato Junior High School in Hachinohe, Aomori, Japan on
Friday, January 22 at 09:24 UTC. Students are learning about the goals
of
the ISS as well as radio communications and are studying for their
amateur
radio licenses.

Morioka Childreni¿½s Museum of Science in Morioka, Iwate, Japan has been
scheduled for an Amateur Radio on the International Space Station
(ARISS)
contact with JAXA astronaut Soichi Noguchi, KD5TVP on Thursday, January
28
at 06:53 UTC. The youth are currently learning about the ISS, satellite
orbits and amateur radio. The contact is expected to be conducted in
Japanese.

2.      Commander Jeffrey Williams and Taiwanese Youth Speak via ARISS
Contact

On Monday, January 11, Expedition 22 Commander Jeffrey Williams, KD5TVQ
participated in an Amateur Radio on the International Space Station
(ARISS)
contact with students attending Humanity Primary and Junior High School
(HPJHS), the first charter school in Taiwan. Joining in the contact were
students from the Technology and Science Institute of Northern
Taiwani¿½s
Department of Computer and Communication Engineering. Six hundred guests
attended the event, which was sponsored by the Chinese Taipei Amateur
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Radio
League (CTARL), and listened as Williams answered 15 questions about
life in
space.  Media coverage included six television stations and five
newspapers.

3.  Cosmonauts Participate in Two ARISS Contacts with Kursk University

On Saturday, January 16, cosmonauts Maksim Suraev and Oleg Kotov both
participated in two Amateur Radio on the International Space Station
(ARISS)
sessions with students and faculty of the Kursk State Technical
University.
The sessions were held on successive ISS passes.

4.  Astronaut Training Status

JAXA astronaut Satoshi Furukawa, KE5DAW received Amateur Radio on the
International Space Station (ARISS) basic operations training as well as
an
ARISS program overview on January 13. Furukawa is training as an
Expedition
28 crew member which is planned to launch in May 2011.

Two Amateur Radio on the International Space Station (ARISS) simulated
contacts are planned with astronauts Doug Wheelock, KF5BOC and Shannon
Walker, KD5DXB on Thursday, January 21.  Wheelock and Walker will answer
questions posed by students at the Manhattan Challenger Learning Center,
New
York, New York and the Challenger Learning Center of Alaska, Kenai,
Alaska,
respectively. Both astronauts are slated to fly with Expedition 24 in
May
2010.

5.  ARISS Audio in Podcast

On the NASA Do-It-Yourself Podcast Web site is an item about using
Amateur
Radio on the International Space Station (ARISS) contacts to record
unique
audio for use in a student built podcast.  The blog provides additional
information via links to the Teaching From Space ARISS Web page as well
as
the DIY Podcast Homepage.  See:
http://blogs.nasa.gov/cm/blog/diyPodcastBlog

6.  ARRL Articles on Record Number of ARISS Contacts

The American Radio Relay League (ARRL) ran a Web story on the record
number
of Amateur Radio on the International Space Station (ARISS) contacts
held
during 2009. ARISS delegate Rosalie White noted in the article that by
yearï¿½s end, there was an increased interest in ARISS among U.S.
schools as
indicated by educatorsï¿½ queries and the increase in U.S. ARISS
applications
submitted.  To view the article, go to:
http://www.arrl.org/news/stories/2010/01/12/11285/?nc=1

The story also ran in the ARRL Letter.  See:
http://www.arrl.org/arrlletter/index.html?issue 10-01-14#toc04

[ANS thanks Carol, KB3LKI, for the above information]

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73,
This week's ANS Editor,
Dee Interdonato, NB2F